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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KAPLAN, HAL IRA

ART UNIT

PAPER NUMBER

2836

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/569,826	<b>Applicant(s)</b> GEHRING ET AL.	
	<b>Examiner</b> HAL KAPLAN	<b>Art Unit</b> 2836	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2006 and 08 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 5) ☒ Claim(s) 1-9 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-9 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 28 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/28/06</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: S9-3 and S9-8 in Figure 2-1. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claims 1-3, 7, and 9 are objected to because of the following informalities: Claim 1, line 5, "(s)" should be deleted. Claim 1, line 6, "the energy available" lacks proper antecedent basis. Claim 1, line 10, "the energy required" lacks proper antecedent

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basis. Claim 1, line 19, "the corresponding consumers" lacks proper antecedent basis. Claim 2, line 4, "the minimum activation period" lacks proper antecedent basis. It is also unclear how the minimum activation period is reduced. Claim 2, line 10, "the energy" lacks proper antecedent basis. Claim 2, line 13, "the event" lacks proper antecedent basis. Claim 2, lines 14-15, "the conditionally switchable consumer(s)" lacks proper antecedent basis. Claim 2, lines 32-33, "the consumer status" lacks proper antecedent basis. Claim 3, line 2, "characterized" should be "characterized in that". Claim 3, line 6, "the start" lacks proper antecedent basis. Claim 3, line 7, "the entire class" lacks proper antecedent basis. Claim 7, line 3, "the determined data" lacks proper antecedent basis. Claim 7, line 4, "the procedure" lacks proper antecedent basis. Claim 7, line 6, "the driver" lacks proper antecedent basis. Claim 9, line 1, "claim 7" should be "claim 8". Claim 9, line 2, "the dynamic division" lacks proper antecedent basis. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1-3 and 7, the scope of the claims is unclear because it is unclear where or how the claimed method ends. It appears that there are various ending points that do not require all of the claimed method steps to actually be carried out. It is

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difficult to determine how many steps the prior art must disclose in order to read on the claims. It is possible to never reach the end of the claims depending on the circumstances. For example, in claim 2, if the available energy is sufficient for all non-switchable consumers requesting activation, then the method stops and the remaining steps do not apply. It is also noted that claims 1 and 2 also contain method steps written in the alternative (see claim 1, lines 15-19 and claim 2, lines 17-19). Claims 2-9 inherit this deficiency.

Claim 1, line 5 contains the recitation "determination of the condition of the generator and energy stores". This recitation is unclear because the specification and claims do not define the "condition" of the generator and energy stores, or describe what is determined. Claims 2-9 inherit this deficiency.

Claim 2, line 8 contains the recitation "checking whether the available energy is sufficient". The claim is unclear because it does not recite what happens if the available energy is sufficient. Claims 3-6 inherit this deficiency.

Claim 2, line 20 contains the recitation "consumers of different classes". This is unclear because the claim does not define the classes of consumers. Claims 3-6 inherit this deficiency.

Claim 3, line 4 contains the recitation "by checking whether the tolerance time ... is equal to or less than 0". It is unclear what is done by checking whether the tolerance time is equal to or less than 0.

Claim 4, line 3 contains the recitations “steps S9-11 to S9-14” and “class II consumers”. This is unclear because the claim does not define the steps or class II consumers. Claim 6 inherits this deficiency.

Claim 5, line 3 and claim 8, line 3 contain the recitation “driving operation”. This is unclear because the claims do not define what "driving operation" is.

Claim 7 contains the recitation “the procedure involving the definition of available energy continues”. This is unclear because the claim does not define a procedure involving the definition of available energy, or recite how it continues. Claim 9 inherits this deficiency.

6. Claim 2 recites the limitations "the highest class", “the lowest tolerance time”, and “the selected consumer(s)” in lines 25-26 and 38. There is insufficient antecedent basis for these limitation in the claim. The claim does not define a class, a highest class, or a lowest tolerance time. Claims 3-6 inherit this deficiency.

7. Claim 3 recites the limitations "the start", “the entire class”, and “this consumer” in lines 6-7. There is insufficient antecedent basis for this limitation in the claim. It is unclear what the entire class of a consumer is, or how a single consumer can be an entire class.

### ***Claim Rejections - 35 USC § 103***

8. In order to expedite and avoid piecemeal prosecution, the following rejections are made to the extent that the claims are understood, by considering those elements which are understood and interpreting their function in a manner which is consistent with the recited goals of the claims, and then applying the best available art.

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9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the European patent of Zuber (1 293 388) in view of the US patent of Schoettle et al. (6,718,214). A machine translation of Zuber is attached.

As to claim 1, Zuber discloses a method for the energy management of the on-

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board electrical system of a vehicle with a generator, at least one energy store and consumers which can be divided up into a plurality of classes, with the following steps: determination of the condition of the generator and energy store (see paragraph [0037]); definition of the energy available (DP) in a subsequent time interval from the determined condition data of the generator and energy store (see paragraphs [0037] – [0038]); checking whether the required energy is greater than the available energy, and if the available energy is not sufficient, selection of the consumers (16a,16i) to be activated in the subsequent time interval according to the energy available and the priorities and tolerance times of the consumers (16a,16i) (see paragraph [0039]). Zuber does not disclose reception of activation requests or determination of the energy required on the basis of activation requests.

Schoettle discloses a method for energy management of the on-board electrical system of a vehicle, comprising reception of activation requests from consumers (NSV,BSV,SV) for a time interval, and determination of the energy required in the time interval on the basis of the activation requests (see column 3, lines 12-31 and the Figure). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified Zuber by having the consumers send activation requests and determining the required energy based on the activation requests, in order to enable adaptation of the prioritizing of the loads of specifiable criteria.

As to claim 2, Schoettle discloses checking whether non-switchable consumers (NSV) are requesting activation, and if so, checking whether the available energy is



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sufficient for all non-switchable consumers requesting activation (see column 3, lines 56-59 and column 4, lines 5-52).

As to claim 8, the consumers of Schoettle can be divided up into classes dynamically while the vehicle is being driven (see column 4, line 5 - column 6, line 6).

As to claim 9, the dynamic division of consumers is dependent on external factors (see column 4, line 5 - column 6, line 6).

***Allowable Subject Matter***

13. Claims 2-6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter:

Claims 2-6 contain allowable subject matter because none of the prior art of record discloses or suggests a method comprising all of the steps of claim 2, in combination with the remaining claimed features.

***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The US patent of Karuppana et al. (6,465,908) discloses a vehicle power management system that can turn consumers on and off depending on available power from a generator or battery.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAL KAPLAN whose telephone number is (571)272-8587. The examiner can normally be reached on M-F 9:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jared Fureman can be reached on 571-272-2391. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hal I. Kaplan/  
Examiner, Art Unit 2836